

What is claimed is:

1. A high frequency circuit comprising:

a transistor having a first terminal receiving an input signal and having a second terminal and a third terminal;

5 a first circuit connected to said second terminal of said transistor; and

a second circuit connected to said third terminal of said transistor,

10 at least one of said first and second circuits comprising one or a plurality of thin film resistors.

2. The high frequency circuit according to claim 1, wherein

15 said first circuit is connected between said second terminal of said transistor and a power supply terminal receiving a power supply voltage, and

said second circuit is connected between said third terminal of said transistor and a grounding terminal receiving a grounding potential.

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3. The high frequency circuit according to claim 2, wherein

at least one of said first and second circuits comprises a series connection of said one or a plurality of thin film

resistors and one or a plurality of resistors having no frequency dependency.

4. The high frequency circuit according to claim 2,  
5 wherein

at least one of said first and second circuits comprises a parallel connection of one or a plurality of thin film resistors and said one or a plurality of resistors having no frequency dependency.

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5. The high frequency circuit according to claim 1,  
wherein

said first circuit has a feedback circuit for feeding back a signal at said second terminal of said transistor to  
15 said first terminal, and

said feedback circuit comprises said one or plurality of thin film resistors.

6. The high frequency circuit according to claim 5,  
20 further comprising

one or a plurality of other transistors,

said feedback circuit feeding back a signal at said second terminal to said first terminal through said one or plurality of other transistors.

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7. The high frequency circuit according to claim 5,  
wherein

said feedback circuit has a feedback path for applying  
a part of a voltage signal at said second terminal to said  
5 first terminal in series, and

said feedback path comprises said one or plurality of  
thin film resistors and one or plurality of resistors having  
no frequency dependency.

10 8. The high frequency circuit according to claim 5,  
wherein

said feedback circuit has a feedback path comprising a  
conversion portion for converting a part of a current signal  
at said second terminal into a voltage signal and an  
15 application portion for applying the voltage signal obtained  
by said conversion portion to said first terminal in series,

said feedback path comprising said one or plurality of  
thin film resistors and one or plurality of resistors having  
no frequency dependency.

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9. The high frequency circuit according to claim 5,  
wherein

said feedback circuit has a feedback path comprising a  
conversion portion for converting a voltage signal at said  
25 second terminal into a current signal and an application

portion for applying the current signal obtained by said conversion portion to said first terminal in parallel,

said feedback path comprising said one or plurality of thin film resistors and one or plurality of resistors having  
5 no frequency dependency.

10. The high frequency circuit according to claim 5, wherein

said feedback circuit has a feedback path for applying  
10 a part of a current signal at said second terminal to said first terminal in parallel, and

said feedback path comprises said one or plurality of thin film resistors and one or plurality of resistors having  
no frequency dependency.

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11. The high frequency circuit according to claim 5, wherein

said feedback circuit has a first feedback path for applying a part of a voltage signal at said second terminal  
20 to said first terminal in series and a second feedback path for applying a part of a current signal at said second terminal to said first terminal in parallel, and

each of said first feedback path and said second feedback path comprises said one or plurality of thin film

resistors and one or plurality of resistors having no frequency dependency.

12. The high frequency circuit according to claim 1,  
5 wherein

said one or plurality of thin film resistors have a thickness smaller than three times its skin depth at a predetermined frequency.

10 13. The high frequency circuit according to claim 12, wherein

said one or plurality of thin film resistors have a thickness of not more than the skin depth at said predetermined frequency.

15 14. The high frequency circuit according to claim 1, wherein

said transistor is a bipolar transistor.

20 15. The high frequency circuit according to claim 1, wherein

said transistor is a field effect transistor.

16. The high frequency circuit according to claim 1,  
25 wherein

said one or plurality of thin film resistors are formed of a thin film of a metal or a metal compound.

17. The high frequency circuit according to claim 16,  
5 wherein

said thin film of the metal or the metal compound includes aluminum, titanium, or tantalum.

18. The high frequency circuit according to claim 3,  
10 wherein

said one or plurality of resistors having no frequency dependency are composed of a semiconductor.

19. The high frequency circuit according to claim 4,  
15 wherein

said one or plurality of resistors having no frequency dependency are composed of a semiconductor.